

WHAT IS CLAIMED IS:

1 *sub* 1. An electronic toy gun for a toy shooting game, the toy gun comprising:
 2 *ALS* an infrared beam emitter configured to emit an encoded infrared beam;
 3 a trigger configured to activate a state of emission of the infrared beam by the
 4 infrared beam emitter so as to indicate that a weapon is being fired;
 5 a game data input device configured to receive game data input from a user; and
 6 an internal processor configured to receive the game data input from the game data
 7 input device and to cause the infrared beam emitter to emit an infrared beam that is coded
 8 with one of a plurality of codes based on the game data input.

1 2. The electronic toy gun of claim 1 wherein the game data input is a code and
 2 the internal processor is configured to retrieve corresponding detailed instructions from a
 3 memory corresponding to the code.

1 3. The electronic toy gun of claim 1 wherein the trigger is configured to activate
 2 the state of emission of the infrared beam so as to indicate that the weapon is being fired by
 3 varying the encoding of the infrared beam.

1 4. The electronic toy gun of claim 1 wherein the game data input corresponds to
 2 characteristics of at least one game character and wherein the infrared beam is encoded
 3 according to the characteristics of the game character so that an opponent can detect the
 4 characteristics of the game character.

1 5. The electronic toy gun of claim 4 wherein the electronic toy gun further
 2 comprises a detector for detecting an encoded infrared beam of an opponent and wherein the
 3 processor is programmed to detect characteristics of a game character corresponding to the
 4 encoded infrared beam of the opponent and to compare the characteristics of the game
 5 character corresponding to the game data input with the characteristics of a game character
 6 corresponding to the encoded infrared beam of the opponent in order to determine an
 7 outcome of an engagement with the opponent.

1 6. The electronic toy gun of claim 4 wherein the characteristics of the game
2 character include one or more of the game character's weapons, armor rating, weapon speed
3 rating, and vulnerability, and wherein the infrared beam is coded to reflect the characteristics
4 of the game character.

1 7. The electronic toy gun of claim 4 wherein the characteristics of the game
2 character include one or both of a weapon beam range and a weapon beam width.

1 8. The electronic toy gun of claim 1 further comprising a feedback device
2 configured to provide variable feedback corresponding a measure of a player's game
3 condition,
4 wherein the internal processor is further configured to calculate the measure of the
5 player's game condition.

1 9. The electronic toy gun of claim 8 wherein the feedback device comprises a
2 display configured to display one or more of damage to a player, hits to a player, energy
3 remaining, distance between a player and an opponent, characteristics of an opponent's
4 weapon, a depiction of a character associated with the toy gun, and special/defensive weapon
5 usage remaining.

1 10. The electronic toy gun of claim 9 wherein the display is a liquid crystal
2 display.

1 11. The electronic toy gun of claim 8 wherein the feedback device comprises an
2 audio device configured to provide one or more of damage to a player, hits to a player,
3 energy remaining, distance between a player and an opponent, characteristics of an
4 opponent's weapon, a character associated with the toy gun, and special/defensive weapon
5 usage remaining.

12. The electronic toy gun of claim 1 wherein the game data input device comprises a card reader.

13. The electronic toy gun of claim 1 wherein the card reader is configured to read a card that includes game data.

14. An electronic toy gun for a toy shooting game, the toy gun comprising:
 an infrared beam emitter configured to emit an infrared beam;
 a trigger configured to activate a state of emission of the infrared beam by the infrared beam emitter so as to indicate that a weapon is being fired;
 a beam detector configured to detect an infrared beam emitted by another electronic toy gun; and
 an internal processor configured to receive a signal from the beam detector and to categorize the infrared beam detected by the beam detector within one of a plurality of strength categories.

15. The electronic toy gun of claim 14 wherein the infrared beam emitter is configured to emit the infrared beam at each of a plurality of differing strengths and to encode the infrared beam differently at each of the differing strengths; wherein the beam detector is configured to detect the infrared beam emitted by the other toy gun at each of the plurality of differing strengths and to detect differing encodings of the infrared beam emitted by the other toy gun at each of the differing strengths; and wherein the processor is configured to categorize the infrared beam detected by the beam detector within one of a plurality of strength categories by determining whether the infrared beam detected by the beam detector is above a minimum threshold when encoded according to each of the differing encodings.

16. The electronic toy gun of claim 14 wherein the detected infrared beam is registered as a hit based on the strength category detected and based on a nature of a weapon corresponding to the detected infrared beam as indicated by an encoding of the infrared beam.

17. The electronic toy gun of claim 14 wherein the detected infrared beam is registered as a hit based on the strength category detected and based on a detected range of a weapon corresponding to the detected infrared beam as indicated by an encoding of the infrared beam.

18. The electronic toy gun of claim 14 wherein the detected infrared beam is registered as a hit based on the strength category detected and based on a vulnerability of a game character selected by the user.

19. An electronic toy gun for a toy shooting game, the toy gun comprising:
an infrared beam emitter configured to emit an encoded infrared beam;
a trigger configured to activate a state of emission of the infrared beam by the infrared beam emitter so as to indicate that a weapon is being fired; and
an internal processor configured to select one of a plurality of virtual beam shapes and to cause the infrared beam emitter to emit a selectable infrared beam that is coded with one of a plurality of codes reflecting the differing virtual beam shapes.

20. The electronic toy gun of claim 19 wherein the virtual beam shape comprises a beam range.

21. The electronic toy gun of claim 19 wherein the virtual beam shape comprises a beam width.

22. An electronic toy gun for a toy shooting game, the toy gun comprising:
an infrared beam emitter configured to emit an infrared beam;
a trigger configured to activate a state of emission of the infrared beam by the infrared beam emitter so as to indicate that a weapon is being fired;
an internal processor configured to calculate a measure of a player's game condition;
and
a feedback device configured to provide variable feedback corresponding to the calculation of the measure of the players game condition.

1 23. The electronic toy gun of claim 22 wherein the feedback device comprises a
2 display configured to display one or more of damage to a player, hits to a player, energy
3 remaining, distance between a player and an opponent, characteristics of an opponent's
4 weapon, a depiction of a character associated with the toy gun, and special/defensive weapon
5 usage remaining.

1 24. The electronic toy gun of claim 22 wherein the feedback device comprises an
2 audio device configured to provide one or more of damage to a player, hits to a player,
3 energy remaining, distance between a player and an opponent, characteristics of an
4 opponent's weapon, a character associated with the toy gun, and special/defensive weapon
5 usage remaining.

1 25. The electronic toy gun of claim 22 wherein the feedback device comprises a
2 liquid crystal display.

1 26. An infrared toy grenade comprising:
2 a grenade body configured to be projected from a first location to a second location;
3 at least one array of infrared beam emitters positioned within the body and configured
4 to emit an array of infrared beams from the body;
5 a switch configured to be operated to activate the array of infrared beam emitters; and
6 a delay configured to provide a time delay between the operation of the switch and
7 the activation of the array of infrared beam emitters.